

Dietary Modulation of Immune Function and Oxidative Stress

ARS LOCATION:

Immunity and Disease Prevention
USDA, ARS, Western Human Nutrition Research Center
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PRINCIPAL INVESTIGATOR:

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PROJECT OBJECTIVES:

1. To determine whether consumption of grape powder alters the lipid profiles and production of inflammatory mediators in the plasma of obese individuals
2. To analyze the activation and proliferation status of immune cells from the blood before and after dietary intake of grape powder.
3. To determine the bioavailability of a subset of the major grape polyphenols after long-term consumption of grape powder.

MAJOR ACCOMPLISHMENTS (2007–2010):

Recruitment and participation of healthy obese volunteers began in October 2009. The study is in progress. Eighteen subjects have completed the study as of October 5, 2010. We plan to enroll at least 24 subjects total in this study, and analyses of lipids, blood inflammatory markers, and immune cell function are in progress.

TECHNOLOGY TRANSFER/OUTREACH: N/A

EXTERNAL SUPPORT:

California Table Grape Commission

COLLABORATORS:

Charles B. Stephensen, ARS Western Human Nutrition Research Center, Davis, CA; and Andrew Breksa, ARS Western Regional Research Center, Albany, CA.

RECENT PUBLICATIONS: N/A